

KJM 3200 / 4200 – Pensum, Vår 2007

- John McMurry: “Organic Chemistry” 6th ed. Etter å ha gjennomgått KJ101, KJM1010+KJM1020 eller KJM1011+KJM1021 og deretter KJM 3200 forutsettes det at studenten kjenner til og kan anvende stoffer i McMurry med unntak av følgende avsnitt: 13.6, 13.7, 13.12, 13.13, 14.8-14.11, 19.10, 21.10, 24.10, hele kap. 29, hele kap 31. Avsnittene som ikke er forelest i KJM10xx kurs er spesifisert under.
- Lise-Lotte Gundersen “KJM 3200. Organisk Kjemi II. Laboratoriekurshefte. 2007”

Kap. i McMurry		Tittel	Sider	Ant sider
6			192-197	5
	6.11	The Hammond postulate		
	6.12	Evidence for the mechanism of Electrophilic Addition: Carbocation Rearrangement		
7			219-221; 227-233	8
	7.6	Addition of Carbenes to Alkenes; Cyclopropane Synthesis		
	7.9	Biological Alkene Addition Reactions		
	7.10	Addition of Radicals to Alkenes: Polymers		
8			250-254; 256-267	5
	8.5	Hydration of Alkynes		
	8.7	Oxidative Cleavage of Alkynes		
10			330-332	2
	10.9	Organometallic Coupling Reactions		
11			372-374	2
	11.12	Elimination Reactions and Cyclohexane Conformation		
	11.13	The Deuterium Isotope Effect		
14			467-469; 480-482	4
	14.2	Molecular description of 1,3-Butadiene		
	14.7	Diene Polymers: Natural and Synthetic Rubber		
16			539-560	21
	16.8	Nucleophilic Aromatic Substitution		
	16.9	Benzyne		
	16.11	Reduction of Aromatic Compounds		
		A Brief Review of Organic Reactions	578-582	4
17			613-619; 623-627	10
	17.9	Protection of Alcohols		

	17.10	Preparation and Use of Phenols		
	17.11	Reaction of Phenols		
18			643-647; 654-655	5
	18.4	Alkoxymercuration of Alkenes		
	18.5	Reactions of Ethers: Acidic cleavage		
	18.9	Crown Ethers		
19			709-716	7
	19.13	The Cannizzaro Reaction: Biological Reduction		
	19.15	Some Biological Nucleophilic Addition Reactions		
21			798-802	4
	21.8	Thioesters and Acyl Phosphates Biological Carboxylic Acid Derivatives		
	21.9	Polyamides and Polyesters: Step-Growth Polymers		
22			827-828; 833-841	9
	22.4	Alpha Bromination of Carboxylic Acids: The Hell-Volhard-Zelinskii Reaction		
	22.7	Halogenation of the Enolate anion: The Haloform Reaction		
23			874-873	9
	23.12	The Stork Enamine reaction		
	23.13	Carbonyl Condensation Reactions in Synthesis: The Robinson Annulation Reaction		
	23.14	Biological Carbonyl Condensation Reactions		
24			909-922;	13
	24.6*	Hofmann and Curtius Rearrangements		
	24.7	Reactions of Amines		
	24.8	Reactions of Arylamines		
	24.9	Tetraalkylammonium Salts as Phase-Transfer Catalysts		
25			956-975	19
	25.7	Reactions of Monosaccharides		
	25.8	Stereochemistry of Glucose: The Fisher Proof		
	25.9	Disaccharides		
	25.10	Polysaccharides and their Synthesis		
	25.11	Other Important Carbohydrates		
26			994-997; 1001-1009	11
	26.3	Synthesis of Amino Acids		
	26.4	Enantioselective Synthesis of Amino Acids		
	26.8	Peptide Sequencing: The Edman Degradation		
	26.9	Peptide Sequencing: C-Terminal Residue Determination		
	26.10	Peptide Synthesis		
	26.11	Automated Peptide Synthesis: The Merrifield		

		Solid Phase Technique		
27		Hele kap.	1027-1052	25
28		Hele kap.	1060-1089	29
30		Hele kap.	1134-1152	18
Tot. ant. sider**				210

* Deler av kap. som spesifisert

** Oppgaver integrert i teksten er inkludert i sidetallene, oppgaver til slutt i kapitlene, orienteringsavsnittene "Chemistry at works" og avsnittene "Summary and Key Words" og Summary of Reactions" er ikke inkludert i sidetallene